



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,158	12/11/2001	Dale Ray	29250/CEO4833N	6121
29978	7590	11/29/2005	EXAMINER	
MARSHALL, GERSTEIN & BORUN (MOTOROLA)				AHMED, SALMAN
233 SOUTH WACKER DRIVE				
SUITE 6300				
CHICAGO, IL 60606-6402				
				ART UNIT
				PAPER NUMBER
				2666

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/015,158	RAY, DALE	
	Examiner	Art Unit	
	Salman Ahmed	2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION:

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 12/11/2001.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-33 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-6,8-13,15-22,24-30,32 and 33 is/are rejected.
 7) Claim(s) 7, 14,23,31 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 11 December 2001 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 9 recites the limitation "the communication resource" in line 13. There is insufficient antecedent basis for this limitation in the claim.

"the communication resource" is not clear as to what does it refers to -- the base station or the base station controller.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 4, 17, 24, 26, 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Schober et al. (US PAT 6493320), hereinafter referred to as Schober.

In regards to claims 1, 4, 26, in a communication system (figure 1 element 100), wherein a controller (figure 1, element 105b or 105a) and a communication resource or controlled device (figure 1, element 105b or 105a) are in communication via a communication link (figure 1 element 110a), a method for enabling a communication resource reset, the method comprising: providing a physical layer element (figure 2A element 207a) within the communication resource, the physical layer element being operatively coupled to the communication link; monitoring (column 10 lines 22-23, the link control unit 205b (FIG. 2B) monitors 620 the receiver 365b) a link parameter (column 2 line 54, the transmission speed of a signal across the link) via the physical layer element (column 10 lines 22-23, receiver 365b), the link parameter being associated with the communication link; and restoring the communication resource to an initial state (column 6 lines 40-46, the sequence 400 begins with an initialization procedure 405) in response to a trigger event so that the controller is operable to reestablish communication and (column 7 lines 48-49, communication is then established 435 between tuning systems 200a and 200b (via link control units 205a and 205b)) with the communication resource, the trigger event (column 6 lines 40-46, An event that triggers the start of the link initialization) being associated with the link parameter is anticipated by (column 6 lines 40-46) the sequence 400 begins with an initialization procedure 405. In the initialization procedure 405, the link control units

205a and 205b (FIGS. 2A and 2B, respectively) are reset 410 (FIG. 3). An event that triggers the start of the link initialization and tuning sequence 400 may only be seen by one end of a link. Such an event may, for example, be a router hardware reset or a link error occurrence. and (column 7 lines 48-49) communication is then established 435 between tuning systems 200a and 200b (via link control units 205a and 205b).

In regards to claims 17, 26 a processor is anticipated by figure 2A element 220a. In regards to claims 17, 26 a first logic or physical layer element that directs the logic circuit to communicate with a physical layer element within the communication resource, the physical layer element being operatively coupled to the communication link is anticipated by figure 2A, elements 210a and 250a. In regards to claims 17, 26 a second logic or reset element that directs the logic circuit to monitor a link parameter via a physical layer element, the link parameter associated with the communication link is anticipated by (column 10 lines 22-23) the link control unit 205b (FIG. 2B) monitors 620 the receiver 365b). In regards to claims 17, 26 a third logic or reset element that directs the logic circuit to restore the communication resource to an initial state in response to a trigger event so that the controller is operable to reestablish communication with the communication resource, wherein the trigger event is associated with the link parameter is anticipated by (column 6 lines 45-55) CLK1 (which is the receive clock for the tuning system 200b at the opposite end of the link 110a). The loss of the receive clock forces the link control unit 205b (of tuning system 200b) to also re-start the initialization and tuning sequence 400. As a result, both link control units 205a and 205b (FIGS. 2A and

2B, respectively) become synchronized in starting initialization and tuning procedure 400.

In regards to claims 24, 32, the logic circuit comprising an application specific integrated circuit is anticipated by (column 1 lines 29-34) components that are used for forming links include, for example, integrated circuits, packaging for integrated circuits, printed circuit boards, connectors, cables, drivers, receivers, and other components.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 8, 9, 16, 18, 25, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schober in view of Grilli et al. (US PAT PUB 2004/0032836), hereinafter referred to as Grilli.

In regards to claims 2, 8, 9, 16, 18, 25, 33 Schober teaches, apparatus and method for automatically initializing link to achieve improved link performance as described in the rejections of claims 1, 7, 26 above.

In regards to claims 2, 9, 18 Schober does not explicitly teach the reset occurring system being a wireless system with base station controllers, base stations serving

mobile stations. In regards to claims 8, 16, 25, 33 Schober does not explicitly teach of the system being CDMA, TDMA compliant.

In regards to claims 2, 9, 18 Grilli teaches (page 12 section 0119) virtual synchronization may be maintained for all or a subset of the base stations 104 under the control of the RNC 110. If and when a particular base station 104 undergoes a reset (e.g., due to software or hardware failure), the RNC 110 may initiate the NBAP procedure with this base station 104 and obtain a partial-range relative time measurement for the base station 104, to virtually synchronize it with the other base stations 104. The reset of this base station 104 does not affect the operation of other base stations 104, which may continue to provide the benefits of virtual synchronization. In regards to claims 8, 16, 25, 33 Grilli teaches (page 1 section 0005) the systems may be based on code division multiple access (CDMA), time division multiple access (TDMA), or some other multiple access techniques

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Schober's teaching by incorporating Grilli 's teaching of a link in a wireless system. The motivation is that (as suggested by Grilli, page 1 section 0005) wireless communication systems are widely deployed to provide various types of communication including voice and packet data services.

5. Claims 3, 10, 19, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schober in view of Grilli, in view of Silverman (US PAT 6731649).

Art Unit: 2666

In regards to claims 3, 10, 19, 27 Schober in view of Grilli teach, apparatus and method for automatically initializing link to achieve improved link performance as described in the rejections of claims 1, 7, 26 above.

In regards to claims 3, 10, 19, 27 Schober in view of Grilli do not explicitly teach the step of monitoring a link parameter via the physical layer element comprises monitoring a link parameter associated with an Ethernet link.

In regards to claims 3, 10, 19, 27 Silverman teaches (column 14 lines 55-64) connectivity between the base stations (BTSs), base station controllers (BSCs) being Gigabit Ethernet..

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Shober in view of Grilli's teaching by incorporating the teachings of Silverman of using Ethernet links. The motivation is that (as taught by Silverman, column 14 lines 55-64) with the introduction of QoS in Gigabit Ethernet networks and the availability of TDMoIP, IP is very seriously considered as the preferred solution.

6. Claims 11, 12, 13, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schober in view of Grilli, in view of Kondylis et al. (US PAT 6665311), hereinafter referred to as Kondylis.

In regards to claims 11, 12, 13, 15 Schober in view of Grilli teach, apparatus and method for automatically initializing link to achieve improved link performance as described in the rejections of claims 1, 7, 26 above.

In regards to claims 11, 12, 13, Schober in view of Grilli do not explicitly teach a trigger event is a decrease in link speed associated with the communication link for a time period.

In regards to claims 11, 12, 13, Kondylis teaches (column 6 lines 39-42) the technique of continuously monitoring the input traffic rate so that it can increase or decrease the reserved bandwidth based on traffic fluctuations.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Schober in view of Grilli's teaching by incorporating the concept of monitoring rate to trigger an event as taught by Kondylis. The motivation is that (as suggested by Kondylis, column 6 lines 39-47) such technique of continuously monitoring the input traffic rate provides the ability to increase or decrease the reserved bandwidth based on traffic fluctuations thus providing strict quality of service (QoS) guarantees

In regards to claim 15, Schober teaches the logic circuit comprises an application specific integrated circuit (column 1 lines 29-34, components that are used for forming links include, for example, integrated circuits, packaging for integrated circuits, printed circuit boards, connectors, cables, drivers, receivers, and other components).

Art Unit: 2666

7. Claims 5, 6, 20, 21, 22, 28, 29, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schober in view of Kondylis et al. (US PAT 6665311), hereinafter referred to as Kondylis.

In regards to claims 5, 6, 20, 21, 22, 28, 29, 30 Schober teaches, apparatus and method for automatically initializing link to achieve improved link performance as described in the rejections of claims 1, 7 and 26 above.

In regards to claims 5, 6, 20, 21, 22, 28, 29, 30 Schober does not explicitly teach a trigger event is a decrease in link speed associated with the communication link for a time period.

In regards to claims 5, 6, 20, 21, 22, 28, 29, 30 Kondylis teaches (column 6 lines 39-42) the technique of continuously monitoring the input traffic rate so that it can increase or decrease the reserved bandwidth based on traffic fluctuations.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Schober's teaching by incorporating the concept of monitoring rate to trigger an event as taught by Kondylis. The motivation is that (as suggested by Kondylis, (column 6 lines 39-47) such technique of continuously monitoring the input traffic rate provides the ability to increase or decrease the reserved bandwidth based on traffic fluctuations thus providing strict quality of service (QoS) guarantees

Allowable Subject Matter

8. Claims 7, 14, 23, 31 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

9. Prior art pertinent to the application but not used in office action:

- US 4386400 A USPAT Reset of a selected I/O channel and associated peripheral equipment by means independent of the channel Cope; Bernard et al.
- US 5388109 A USPAT Data communications device with resident link adapter Hodge; Dean Y. et al.
- US 6609167 B1 USPAT Host and device serial communication protocols and communication packet formats Bastiani; Vincent J. et al.
- US 20030191862 A1 US-PGPUB Communications system using rings architecture Greenblat, Ilia

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Salman Ahmed whose telephone number is (571)272-8307. The examiner can normally be reached on 8:30 am - 5:00 pm.

Art Unit: 2666

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571)272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Salman Ahmed
Examiner
Art Unit 2666

SA

Seema S. Rao
SEEMA S. RAO 11/28/05
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600